


CONFIDENTIAL

UTS AUSTRALIA 208VAC/25KVA ENERSYSTEM™
 W/ 25KVA AC PCU, 3X25KW DC INPUTS,
 1X25KVA AC INPUTS, ENERSTORE™ 100KWH

INTERCONNECTION DIAGRAM

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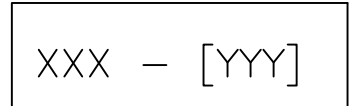

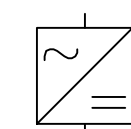
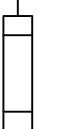
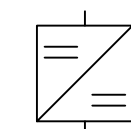
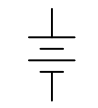

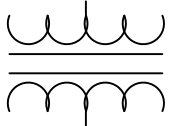
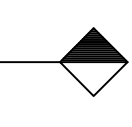
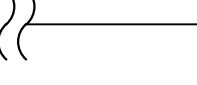
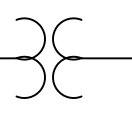


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DESIGNED BY	DATE	DESIGNED BY	DATE
WX	02JAN13	KD	10JAN13
CHECKED BY	DATE	PROJECT	
ZMA	10JAN13	PRJ-1032	

DESCRIPTION
 UTS AUSTRALIA
 208VAC/25kVA ZBB ENERSYSTEM™
 W/ 2X25KVA DC, 2X25KVA AC INPUTS,
 ENERSTORE 100KWH V3
 INTERCONNECTION DIAGRAM

EQUIPMENT NO. PHILOSOPHY – PREFIX	
NO.	DESCRIPTION (IEEE C37.2)
3	CHECKING OR INTERLOCKING RELAY 3Cx = contact
4	MASTER CONTACTOR CUSTOMER 4X/xx = auxiliary contact
8	CONTROL POWER DISCONNECTING DEVICE
11	MULTIFUNCTIONAL DEVICE / EQUIPMENT
23	TEMPERATURE CONTROL DEVICE
30	ANNUNCIATOR RELAY
34	MASTER SEQUENCE DEVICE
43	MANUAL TRANSFER OR SELECTOR DEVICE
52	AC CIRCUIT BREAKER
75	POSITION CHANGING MECHANISM
89	LINE SWITCH
90	REGULATING DEVICE

LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
XXX YYY/ZZZ 	CIRCUIT BREAKER, (600VAC, 250VDC), 1 POLE, THERMAL-MAGNETIC UNLESS NOTED. XXX = IDENTIFIER (IEEE C37.2, ISA 5.1) YYY = FRAME SIZE (A) ZZZ = INTERRUPTING CURRENT (KA)		ENCLOSURE OR PANEL XXX = PANEL DESCRIPTION / TAG YYY = LOCATION
XXX/YY ZZ 	DISCONNECT SWITCH, OPEN TYPE. XXX = FRAME SIZE (V) YYY = FRAME SIZE (A) ZZ = POSITION AND/OR IDENTIFIER	XXX 	INVERTER (208VAC, 3PHASE, 60HZ) UNLESS NOTED. XXX = SIZE (KVA)
XXX/YYY 	FUSE, (600VAC, 250VDC) UNLESS NOTED. XXX = FRAME SIZE (A) YYY = INTERRUPTING CURRENT (KA)	XXX YYY ZZZ 	CONVERTER XXX = MAX CURRENT CHARGE/DIS-CHARGE YYY = OPERATING VOLTAGE RANGE ZZZ = ADDITIONAL INFORMATION
XXX Y, Z	BRANCH CIRCUIT, 208VAC L-L, 1 WIRE UNLESS NOTED XXX = VOLTAGE LINE Y = PHASE Z = NUMBER OF WIRES	XXX YYY ZZZ 	BATTERY XXX = MAX POWER OUT (kW) YYY = MAX VOLTAGE (V) ZZZ = MAX AMPREAGE (A)
XXX Y, Z 	BRANCH CIRCUIT, SINGLE PHASE AS DENOTED BY (1) DIAGONAL LINE. XXX = VOLTAGE LINE Y = PHASE Z = NUMBER OF WIRES		
XXX YYY	DC BRANCH CIRCUIT. XXX = FLA RATING YYY = LOCATION/IDENTIFIER		
XXX YY:ZZZ 	TRANSFORMER, 3 PHASES & 4 WIRES UNLESS NOTED. WYE & Δ CONNECTIONS ARE IDENTIFIED. XXX = VA RATINGS IN KVA YYY = PRIMARY SIDE VOLTAGE ZZZ = SECONDARY SIDE VOLTAGE		
XXX YYY 	SCOPE OF SUPPLY, GENERALLY DEFINES THE MECHANICAL, ELECTRICAL & SOFTWARE SCOPES OF SYSTEM. XXX = SCOPE INDICATED YYY = SCOPE INDICATED		
XXX-Y 	CIRCUIT BRANCH CONNECTION (ONLY FOR DRAWING PURPOSE), EACH CRKT BRANCH CONNECTION(S) IS DEFINED BY TABLE IN EACH APPLICABLE PAGE(S). XXX = ENCLOSURE IDENTIFIER Y = CONNECTION IDENTIFIER (A~Z)		
XXX/YYY Z-Z 	POTENTIOMETER TRANSMITTER (PT), WWW = SIGNAL DESTINATION XXX = PRIMARY VOLTAGE YYY = SECONDARY VOLTAGE Z-Z = CONNECTION TYPE		



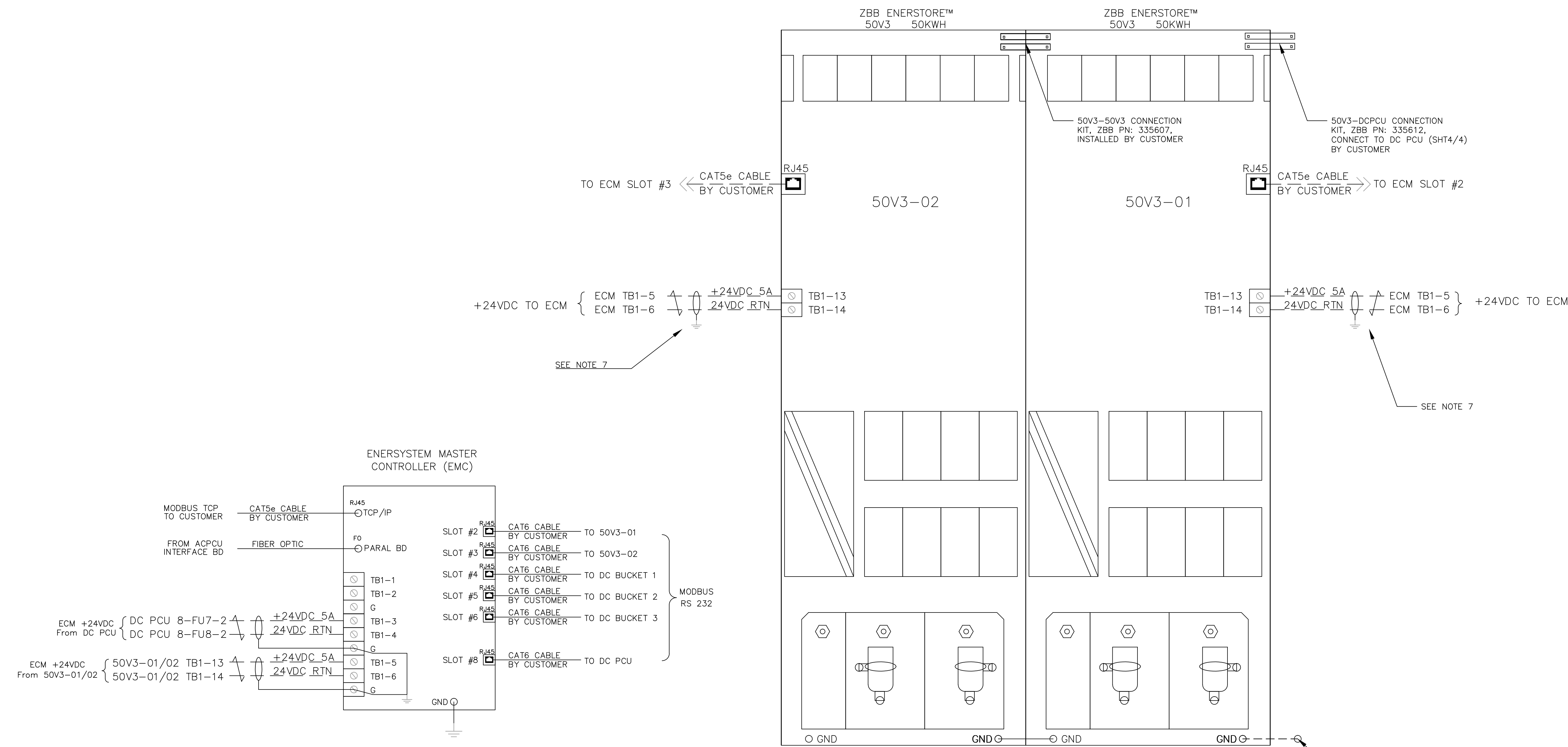
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208VAC/25kVA ZBB ENERSYSTEM™
W/ 2X25KVA DC, 2X25KVA AC INPUTS,
ENERSTORE 100KWH V3
INTERCONNECTION DIAGRAM

GENERAL NOTES :

1. WIRING METHODS & MATERIALS PER NEC/NFPA 70, UL & LOCAL GOVERNING BODIES.
2. LINE DRAWING DOES NOT DEPICT THE PHYSICAL LOCATION OF ENCLOSURE & EQUIPMENT.
3. FIELD WIRING OPENING SHOULD BE SIZED & INTENDED FOR ARMOR CABLE OR CONDUIT ONLY
4. CLASS 1 WIRING METHODS AND MATERIALS PER NEC, UL, & LOCAL GOVERNING BODIES
5. PLEASE FOLLOW TORQUE RATINGS ON COMPRESSION TERMINALS
6. VOLTAGE AND CURRENT (FULL LOAD AMPERES) IS MENTIONED FOR WIRING DONE AT SITE BY CUSTOMER
7. 24VDC SUPPLY FOR EMC SHALL USE TWISTED AND SHIELDED CABLE. SHIELD SHALL BE GROUNDED AT EMC END.
8. DB9 CABLE FOR CUSTOMER'S RS232 MODBUS INTERFACE MUST NOT BE RUN MORE THAN 50 FEET
9. FROM ALL DEVICES TO EMC, CAT6 (SHIELDED WHEN POSSIBLE) CABLE SHOULD BE USED WITH RJ45 8P8C CONNECTORS. CABLE MUST BE STRAIGHT THROUGH (NO CROSSOVER)
10. CUSTOMER'S INTERFACE CABLE FOR CUSTOMER CONTROL SHOULD BE CAT6 SHIELDED CABLE AND RUN NOT MORE THAN 330 FEET



CONNECT TO DC PCU EQUIPMENT GROUND REFER TO SHT4/4

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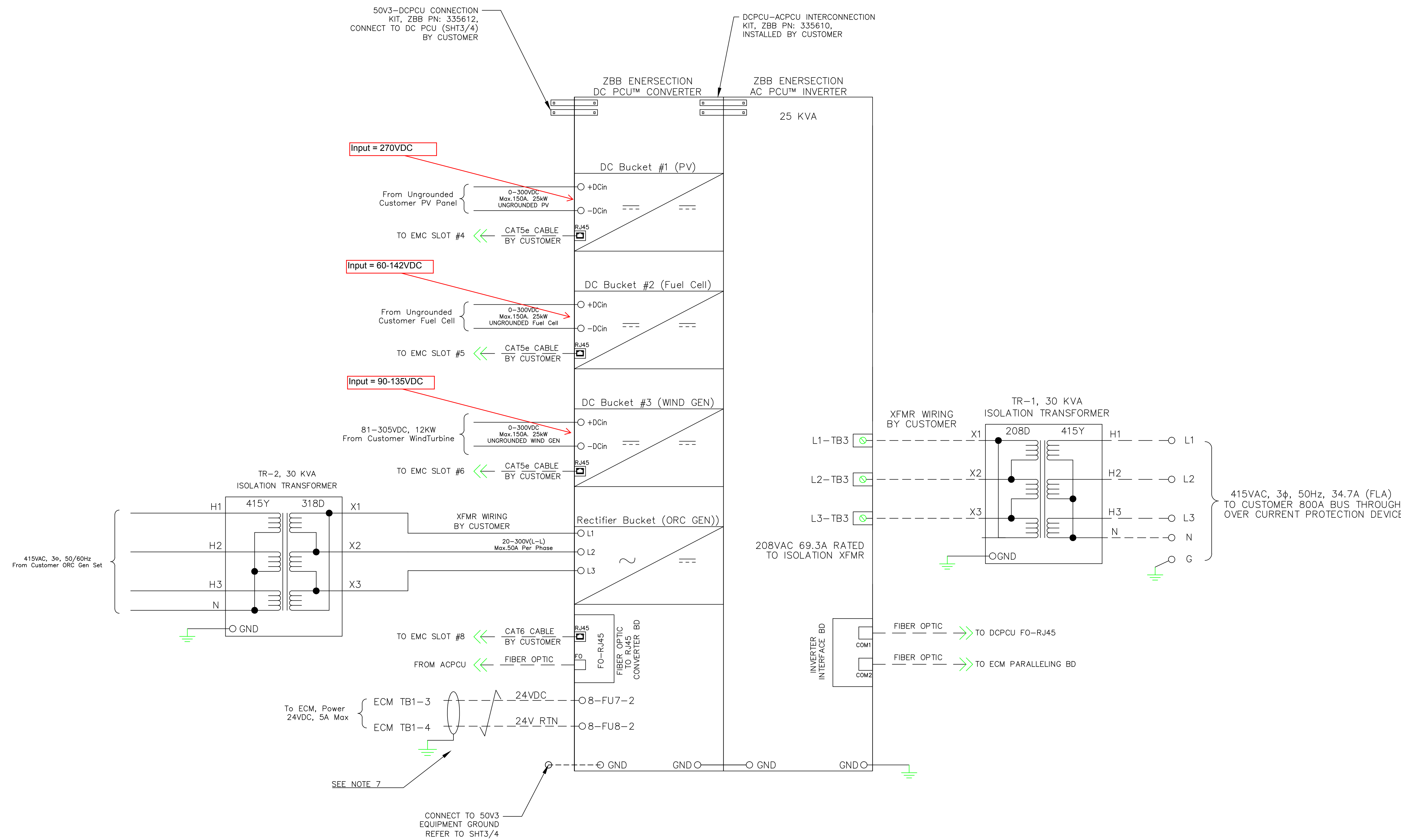
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 ENERSTORE 100KWH V3
 INTERCONNECTION DIAGRAM

REV#	00	INITIAL RELEASE	02JAN13	WX	SCALE	NONE	REV#	3	of	4	REV.	00
REVISIONS												

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00			02JAN13	WX	NONE	4 of 4	00